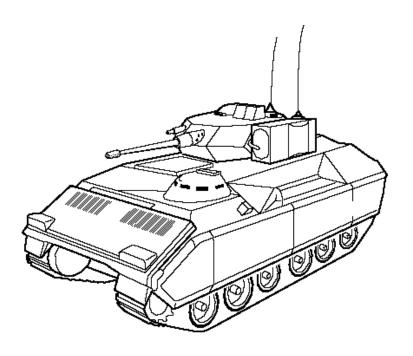
# M2A1/M3A1 BFV



SYSTEM IDENTIFIERS				
NOMENCLATURE:	Infantry/Cavalry Fighting Vehicle			
SSN:	G80702/G80704			
LIN:	F40307/F60462			
NSN:	2350-01-179-1027 2350-01-179-1028			
AMIM NO:	I014			
EIC:	ALE/ALF			
FUEL TYPE:	DIESEL			

#### **SYSTEM DESCRIPTION**

The M2A1/M3A1 Bradley Fighting Vehicles (BFVs) are fully tracked, lightly armored, amphibious, fighting vehicles. The M2A1 is an infantry vehicle while the M3A1 is the cavalry version. These vehicles are upgrades of the M2/M3 versions featuring improved NBC protection and fire suppression systems. The armament consists of an M242 25mm chain gun, a TOW 2 missile system, a 7.62mm coaxial machine gun, and an M257 smoke grenade launcher. There are six firing ports in the M2A1, which are located along the sides and rear of the vehicle. The crew of three consists of a commander, gunner, and driver. The M2A1 carries seven soldiers in addition to the crew while the M3A1 carries two scouts along with the three man crew. M2A1/M3A1 has a turbo-charged VTA-903T engine. The vehicle weighs 25 tons. The top speed is 38 miles per hour. The BFV has a fuel capacity of 175 gallons with a cruising range of 300 miles.

The list below identifies components associated with the weapon/materiel system. This is not an all inclusive list of LINs.

### M2A1/M3A1 BFV

LIN	NSN	NOMENCLATURE
A10769	4910-01-135-4379	ADAPTER HARDWARE, FVS PECULIAR
A23291	4935-01-143-3186	TEST SET, ALIGNMENT
A46470	5820-00-892-3342	AMPLIFIER, AUDIO FREQ
A53149	5820-00-973-3383	AMPLIFIER, POWER SUPPLY
A71438	5985-00-086-7651	ANTENNA, AT-784/PRC
B12701	4935-01-107-7619	ALIGNMENT, BREAKOUT BOX
B38070	5820-00-893-1323	BASE SHOCK MOUNT ELECTRICAL, MT-102
B39044	1240-01-167-1317	BASIC SIGHT ASSEMBLY
C89070	1080-00-108-1173	CAMOUFLAGE SCREEN SUPPORT
C89145	1080-00-103-1246	CAMOUFLAGE SCREEN SYSTEM
E94970	5820-00-892-3340	CONTROL R C-2299/VRC
G96797	1005-01-086-1400	GUN, 25MM AUTO, M242
K93373	5830-00-856-3273	INTERCOMMUNICATION SET
L40063	5860-01-062-3543	LASER INFARED OBS. SET
L44031	1055-01-070-1213	LAUNCHER, GRENADE SMOKE
M77926	5820-00-893-1324	MOUNTING MT-1898/VRC
M92420	1005-01-085-4758	MACHINE GUN, 7.62MM
N04456	5855-00-150-1820	NIGHT VISION GOGGLES
N04732	5855-00-629-5334	NIGHT VISION SIGHT, IND
N04982	5855-01-083-9053	EQUIPMENT SET, NIGHT VISION
P43608	1730-00-933-4742	POWER SUPPLY HYDRAULIC
Q03468	1290-00-891-9999	QUADRANT FIRE CONTROL
Q21483	6665-00-999-5145	RADIACMETER, IM-174/PD
Q34308	5820-00-223-7411	RADIO SET, AN/GRC-160
Q38299	5820-00-857-0759	RADIO SET, AN/PRC-77
Q45779	5820-00-223-7412	RADIO SET, AN/VRC-12
Q53001	5820-00-223-7433	RADIO SET, AN/VRC-46
Q54174	5820-00-223-7434	RADIO SET, AN/VRC-47
Q56783	5820-00-223-7475	RADIO SET, AN/VRC-53
Q78282	5820-00-082-3998	RADIO SET, AN/GRA-39A
R20684	6665-01-222-1425	RADIAC SET, AN/VDR-2
R25600	5820-00-892-0624	RECEIVER RADIO, R-442/VRC
R33802	5820-00-857-0934	RECEIVER-TRANSMITTER RADIO, RT-505
R33939	5820-00-892-0622	RECEIVER-TRANSMITTER RADIO, RT-524
R44795	5820-01-151-9918	RADIO SET AN/VRC-89
S10361	4935-01-130-1029	TEST SET, FIGHTING SUPP
S56419	1005-01-081-4582	MACHINE GUN, M231
S61627	4935-01-108-2968	SHOP EQUIPMENT, BASIC
T29881	4935-01-108-0442	TEST SET, TOW SUSBSYSTE
T52849	6625-01-120-0764	TEST SET ELECTRONIC SYSTEM
T90579	6625-00-489-7398	TEST SET, TURRET ELECTR
W80715	1430-00-078-8340	TRACKER, INFARED GUIDED

#### SYSTEM VARIANTS

MDS	LIN	NSN
M2	J81750	2350-01-048-5920
M3	C76335	2350-01-049-2695

This summary provides an overview of FY 94 Total Army operating and support costs and other information for the weapon system. Average cost per system or per mile are displayed so the data can be used in performing analytical and cost studies. Average costs are calculated using the end item's density and activity. NET REPARABLES represent the cost with the Major Subordinate Command (MSC) specific credit rates applied (detailed in Section 1 - Overview).

# M2A1/M3A1 BFV FY 94 TOTAL ARMY COST SUMMARY (FY 94 Constant Dollars)

#### **ACTIVITY/DENSITY**

MILES 750,776

NUMBER OF SYSTEMS 1,804

OPTEMPO (MILES/SYSTEM) 416

#### **DEPOT END ITEM MAINTENANCE (5.061)**

 TOTAL
 \$53,402,277

 QUANTITY COMPLETED
 404

 AVG COST/END ITEM
 \$132,183.85

#### CLASS III-POL (5.05)

POL \$631,641 AVG COST/SYSTEM \$350.13 AVG COST/MILE \$0.84

#### DEPOT SECONDARY ITEM MAINTENANCE

TOTAL \$2,188,169
QUANTITY COMPLETED 1,411
AVG COST/SECONDARY ITEM \$1,550.79

#### **CLASS V-AMMUNITION (2.11)**

AMMUNITION \$6,813,458 AVG COST/SYSTEM \$3,776.86 AVG COST/MILE \$9.08

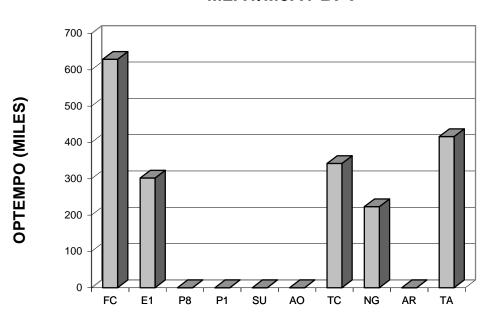
# INTERMEDIATE MAINTENANCE

MIL/CIV LABOR COST AVG COST/SYSTEM AVG COST/MILE	DS/GS \$624,337 \$346.08 \$0.83	CIVILIAN \$470,583 \$260.86 \$0.63
MAINTENANCE MANHOURS	37,588	22,865
MMHs/SYSTEM	20.84	12.67
MMHs/MILE	0.05	0.03

#### **CLASS IX MATERIEL-PARTS (5.04/5.03)**

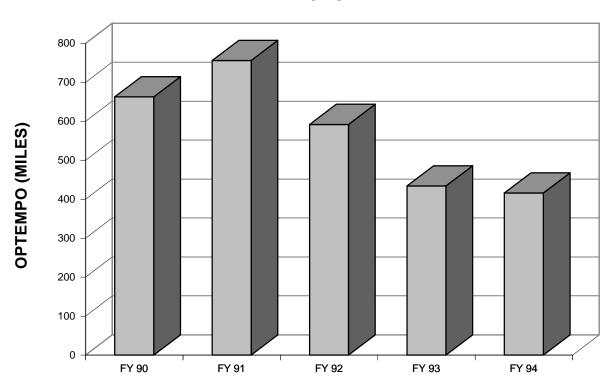
	FY 94	AVG COST	AVG COST
	<u>DOLLARS</u>	PER SYSTEM	PER MILE
CONSUMABLES	\$15,964,638	\$8,849.58	\$21.26
NET REPARABLES	\$19,950,576	\$11,059.08	\$26.57
TOTAL	\$35,915,214	\$19,908.66	\$47.84

The following graph and table display FY 94 OPTEMPO data by MACOM. ACTIVITY represents the miles recorded in The Army Maintenance Management System-Equipment Data Base (TAMMS-EDB). NUMBER OF SYSTEMS is the density recorded in the Continuing Balance System-Expanded (CBS-X). OPTEMPO is calculated by dividing ACTIVITY (Miles) by NUMBER OF SYSTEMS. The Total Army (TA) OPTEMPO is the summation of all MACOM activities (Miles) divided by the summation of all MACOM number of systems.



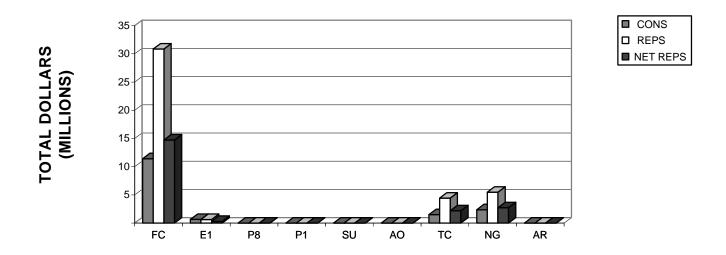
	M2A1/M3A1 BFV FY 94 MACOM OPTEMPO							
	MACOM	ACTIVITY	NUMBER					
CODE	NAME	(Miles)	OF SYSTEMS	OPTEMPO				
FC	FORSCOM	482,659	767	629				
E1	USAREUR	25,972	86	302				
P8	EUSA	0	0	0				
P1	USARPAC	0	0	0				
SU	USARSO	0	0	0				
AO	USASOC	0	0	0				
TC	TRADOC	86,759	254	342				
NG	ARNG	155,386	697	223				
AR	USAR	0	0	0				
TA	TOTAL ARMY	750,776	1,804	416				

The following graph and table display FY 90-94 OPTEMPO by Total Army. The Total Army ACTIVITY and NUMBER OF SYSTEMS are a summation of all the MACOMs displayed on the previous page. ACTIVITY represents the miles recorded in TAMMS-EDB. NUMBER OF SYSTEMS is the density recorded in the Continuing Balance System - Expanded (CBS-X). OPTEMPO is calculated by dividing ACTIVITY (Miles) by NUMBER OF SYSTEMS. Blank rows indicate system was not tracked in the OSMIS database during that fiscal year.



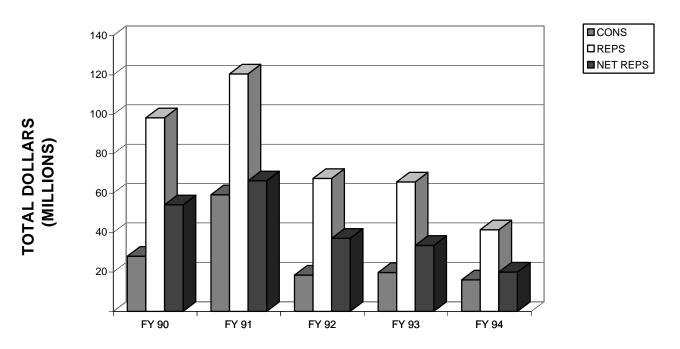
M2A1/M3A1 BFV FIVE YEAR TOTAL ARMY OPTEMPO							
FISCAL YEAR	ACTIVITY (Miles)	NUMBER OF SYSTEMS	OPTEMPO				
FY 90	1,459,502	2,203	663				
FY 91	1,906,613	2,522	756				
FY 92	1,031,082	1,743	592				
FY 93	730,932	1,683	434				
FY 94	750,776	1,804	416				

The following graph and table display FY 94 Class IX costs for consumables (CONS), reparables, (REPS), and net reparables (NET REPS) by MACOM. CONS and REPS are the total costs of requisitions recorded in the Logistic Intelligence File (LIF). NET REPS are the cost to the customer in the field and are calculated by applying an MSC-specific credit rate at the NSN level. TOTAL ARMY (TA) costs are the summation of costs across all MACOMs in the table. NET TOTAL COSTS are the sums of the costs of CONS and NET REPS. AVG PER SYSTEM costs are calculated by dividing the costs in NET TOTAL COSTS by the number of systems for each MACOM. AVG PER MILE costs are calculated by dividing NET TOTAL COSTS by the activity (Miles) for each MACOM.



	M2A1/M3A1 BFV								
		FY 9	94 MACOM	CLASS IX C	COSTS				
	MACOM			NET	NET TOTAL	AVG PER	AVG PER		
CODE	NAME	CONS	REPS	REPS	COSTS	SYSTEM	MILE		
FC	FORSCOM	11,422,911	30,847,537	14,734,302	26,157,213	34,103	54		
E1	USAREUR	659,637	651,049	308,497	968,134	11,257	37		
P8	EUSA	0	0	0	0	0	0		
P1	USARPAC	0	0	0	0	0	0		
SU	USARSO	0	0	0	0	0	0		
AO	USASOC	0	0	0	0	0	0		
TC	TRADOC	1,509,394	4,432,118	2,183,903	3,693,297	14,541	43		
NG	ARNG	2,372,696	5,477,972	2,723,874	5,096,570	7,312	33		
AR	USAR	0	0	0	0	0	0		
TA	TOTAL ARMY	15,964,638	41,408,676	19,950,576	35,915,214	19,909	48		

The following graph and table display FY 90-94 Class IX costs for consumables (CONS), reparables (REPS) and net reparables (NET REPS) by Total Army. The Total Army costs are a summation of all the MACOMs displayed on the previous page. CONS and REPS are the total cost of requisitions recorded in the Logistic Intelligence File (LIF). NET REPs are the cost to the customer in the field and are calculated by applying an MSC-specific credit rate at the NSN level. NET TOTAL COSTS are the sums of the costs of CONS and NET REPS. AVG PER SYSTEM costs are calculated by dividing the costs in NET TOTAL COSTS by the number of systems in the Total Army for the fiscal year. The AVG PER MILE costs are calculated by dividing NET TOTAL COSTS by the Total Army Activity for the fiscal year. Blank rows indicate system was not tracked in the OSMIS database during



M2A1/M3A1 BFV FIVE YEAR TOTAL ARMY CLASS IX COSTS									
FISCAL			NET	NET	AVG PER	AVG PER			
YEAR	CONS	REPS	REPS	TOTAL COSTS	SYSTEM	MILE			
FY 90	28,021,060	98,275,505	54,051,527	82,072,587	37,255	56			
FY 91	59,191,618	120,502,259	66,276,242	125,467,860	49,749	66			
FY 92	18,400,956	67,471,449	37,109,297	55,510,253	31,848	54			
FY 93	19,751,770	65,681,465	33,497,547	53,249,317	31,640	73			
FY 94	15,964,638	41,408,676	19,950,576	35,915,214	19,909	48			

The Total Army Class IX costs from the previous pages are broken out by Work Breakdown Structure (WBS) in the following table. The FY 94 WBS Class IX costs for consumables (CONS) and reparables (REPS) are the total cost of requisitions recorded in the Logistic Intelligence File (LIF). The NET REPS are the cost to the customer in the field and are calculated by applying an MSC-specific credit rate at the NSN level. The TOTAL costs are a summation of all the WBS elements displayed in the table. NET TOTAL COSTS are the sum of the costs in CONS and NET REPS. AVG PER SYSTEM costs are calculated by dividing the costs in NET TOTAL COSTS column by the total number of systems in the Army. AVG PER MILE costs are calculated by dividing the NET TOTAL COSTS by the total activity (Miles) for the entire Army.

	M2A1/M3A1 BFV FY 94 TOTAL ARMY WORK BREAKDOWN STRUCTURE COSTS									
	11011017			NET	NET	AVG PER	AVG PER			
WBS	NAME	CONS	REPS	REPS	TOTAL COSTS	_	MILE			
01	HULL/FRAME	1,147,619	208,297	108,388	1,256,007	696	2			
02	SUSPENSION/STEER	829,231	1,411,688	732,709	1,561,940	866	2			
03	POWER PACKAGE	2,121,570	11,204,142	5,814,948	7,936,518	4,399	11			
04	AUX AUTOMOTIVE	1,690,546	720,375	377,503	2,068,049	1,146	3			
05	TURRET ASSEMBLY	989,320	991,435	497,617	1,486,937	824	2			
06	FIRE CONTROL	681,011	17,702,431	8,098,990	8,780,001	4,867	12			
07	ARMAMENT	4,711,964	6,756,442	3,179,869	7,891,833	4,375	11			
80	BODY/CAB	0	0	0	0	0	0			
09	AUTO LOADING	0	0	0	0	0	0			
10	AUTO/REMOTE PILOT	0	0	0	0	0	0			
11	NBC EQUIPMENT	36,146	13	6	36,152	20	0			
12	SPECIAL EQUIPMENT	0	0	0	0	0	0			
13	NAVIGATION	0	34,586	18,123	18,123	10	0			
14	COMMUNICATIONS	699,894	307,328	166,492	866,386	480	1			
15	VEH APP SOFTWARE	0	0	0	0	0	0			
16	VEH SYS SOFTWARE	0	0	0	0	0	0			
17	INT, ASSY, TEST, C/O	0	0	0	0	0	0			
18	OTHER	3,057,337	2,071,939	955,931	4,013,268	2,225	5			
	TOTAL	15,964,638	41,408,676	19,950,576	35,915,214	19,909	48			

The following table displays FY 90-94 Class IX costs by Work Breakdown Structure (WBS) for the Total Army. NET TOTAL COSTS are summation for all the WBS elements displayed on the previous page and are a sum of the costs of CONS and NET REPS. AVG PER SYSTEM costs are calculated by dividing the costs in NET TOTAL COSTS by the total number of systems in the Army for the fiscal year. AVG PER MILE costs are calculated by dividing NET TOTAL COSTS by the total activity (miles) for the Total Army in the fiscal year. Blank columns indicate system was not tracked in the OSMIS database during that fiscal year.

	M2A1/M3A1 BFV									
	FIVE YEAR TOTAL ARMY WORK BREAKDOWN STRUCTURE COSTS									
		FY 90	FY 91	FY 92	FY 93	FY 94				
		NET TOTAL	NET TOTAL	NET TOTAL	NET TOTAL	NET TOTAL				
WBS	NAME	COSTS	COSTS	COSTS	COSTS	COSTS				
01	HULL/FRAME	2,918,503	3,362,181	2,075,974	1,681,817	1,256,007				
02	SUSPENSION/STEER	8,653,761	19,426,496	2,762,136	4,150,096	1,561,940				
03	POWER PACKAGE	35,065,983	33,665,487	12,062,623	9,283,698	7,936,518				
04	AUX AUTOMOTIVE	5,108,034	8,077,228	3,355,924	2,218,141	2,068,049				
05	TURRET ASSEMBLY	3,480,157	5,543,932	2,846,768	2,062,757	1,486,937				
06	FIRE CONTROL	9,556,500	14,718,090	13,947,114	13,546,342	8,780,001				
07	ARMAMENT	10,945,508	17,425,780	8,799,731	6,979,456	7,891,833				
80	BODY/CAB	0	0	0	0	0				
09	AUTO LOADING	0	0	0	0	0				
10	AUTO/REMOTE PILOT	0	0	0	0	0				
11	NBC EQUIPMENT	158,486	271,952	60,467	44,329	36,152				
12	SPECIAL EQUIPMENT	0	0	0	0	0				
13	NAVIGATION	79,601	176,217	109,586	46,301	18,123				
14	COMMUNICATIONS	1,363,428	2,134,567	1,126,895	871,881	866,386				
15	VEH APP SOFTWARE	0	0	0	0	0				
16	VEH SYS SOFTWARE	0	0	0	0	0				
17	INT, ASSY, TEST, C/O	0	0	0	0	0				
18	OTHER	4,742,626	20,665,930	8,363,035	12,364,499	4,013,268				
	TOTAL	82,072,587	125,467,860	55,510,253	53,249,317	35,915,214				
	AVG PER SYSTEM	37,255	49,749	31,848	31,640	19,909				
	AVG PER MILE	56	66	54	73	48				

# M2A1/M3A1 BFV TOP 40 COST DRIVERS CLASS IX CONSUMABLES (NON-DLRs)

	NSN	NOMENCLATURE	WBS	MRC	ARI	MATCAT	FY 94 AMDF UNIT PRICE	FY 94 QTY
	NON	NOMENCEATORE	VVDO	IVIIC	AIXI	WATCAT	UNITERIOL	QII
1.	1005011098136	CONTROL, TURRET	07D	F		M21MM	22,258.00	84.46
	1005012735946	CONTROL BOX,ELECTRI	07D	F	D	M21MM	22,620.00	37.60
	4935013594461	COLLIMATOR ASSEMBLY	18	F	D	L24E7	76,945.00	9.60
4.	6135010363495	BATTERY,PRIMARY,LIT	18	Z		G22TJ	51.54	14,019.79
5.	2815011056445	ENGINE BLOCK ASSEMB	03A	Z		K21MM	4,582.00	132.40
6.	2540013124730	SHOCK ABSORBER, DIRE	02G	Z		K22MM	420.00	1,167.12
7.	2930011182885	RADIATOR, ENGINE COO	03G	F		K21MM	2,262.00	101.38
8.	6110011131076	DISTRIBUTION BOX	04A	F		K21MM	4,418.00	50.73
9.	5855010271554	TUBE AND MAGNIFIER	06E	Z		G22SY	2,481.00	83.30
10.	6140012101964	BATTERY,STORAGE	18	F		K21PU	57.22	3,409.26
11.	2530012044421	PAD,TRACK SHOE	02B	Z		K22MM	6.28	28,496.42
12.	6110012017880	DISTRIBUTION BOX	04A	F		K21MM	6,463.00	26.88
13.	1005011131450	GEAR BOX,TRAVERSE D	07D	F		M21MM	5,407.00	31.48
14.	1005011140080	BREECH ASSEMBLY	07A	Z		M22H8	1,984.00	79.82
15.	6110011392918	DISTRIBUTION BOX	05E	F		M21MM	5,666.00	27.53
16.	6110011768802	DISTRIBUTION BOX	05E	F		M21MM	8,641.00	18.05
17.	1005010884359	BARREL ASSEMBLY	07A	0		M21H8	5,563.00	21.62
18.	1005011133762	GEARBOX ASSEMBLY,LI	07D	F		M21MM	4,616.00	24.40
	5945012018291	RELAY BOX	04A	F	D	M21MM	1,784.00	60.47
20.	3010011131452	GEARBOX,TOW ELEVATI	03L	F		M21MM	4,587.00	22.97
21.	5945012800204	SOLENOID, ELECTRICAL	07A	F		M21H8	962.00	109.06
22.	5998011164948	PRINTED WIRING BOAR	05E	Z		M22MM	2,677.00	38.36
23.	4820013063275	COCK,POPPET DRAIN	01A	0		K21MM	215.00	464.98
	4330011346531	POWER PACK,HYDRAULI	18	F	D	K21MM	1,293.00	74.75
25.	1005011131455	GEARBOX ASSEMBLY,EL	07D	F		M21MM	4,796.00	19.61
26.	6650012131286	PERISCOPE,TANK	18	Z		M22MM	75.27	1,120.66
27.	4935011671330	TILT STAGE ASSEMBLY	18	F		L21E7	39,120.00	2.15
28.	1005011766085	CHUTE,AMMUNITION	07D	0		M21MM	885.00	94.09
29.	3020011024684	SPROCKET WHEEL	03H	Z		K22MM	202.00	366.82
	6140000572553	BATTERY STORAGE	18	F		K21PU	47.22	1,442.52
31.	5999012064258	CIRCUIT CARD ASSEMB	04A	Z		K22MM	441.00	145.45
	2530008016702	WHEEL SOLID RUBBER T	02A	F		K21MM	289.00	218.05
	2520010894896	FINAL DRIVE ASSEMBL	03N	Н	D	K21MM	2,808.00	22.11
	4210011073329	EXTINGUISHER,FIRE,V	04B	F		K21MM	692.00	87.47
	1005012238819	ELECTRONIC CONTROL	07D	F	D	M21MM	22,620.00	2.63
	2920013384814	STARTER, ENGINE, ELEC	03A	F		K21MM	475.00	121.91
	1005010959151	CONTROL BOX,TURRET	07D	F		M21MM	795.00	72.04
38.		CHUTE, AMMUNITION	07D	0		M21MM	800.00	71.37
39.		IMAGE INTENSIFIER,N	06E	Z		G22SZ	1,274.00	44.33
40.	5945010897649	SOLENOID,ELECTRICAL	07A	Z		M22H8	521.00	106.95

NUMBER OF SYSTEMS	1,804
MILES	750,776

NOTE: ROWS MAY NOT CALCULATE DUE TO ROUNDING

# M2A1/M3A1 BFV CONSUMABLES (NON-DLRs)

	AVERAGE COST			QUANTITY		FY 90-94 FIVE YEAR AVERAGE		
EXTENDED COST	PER	PER	PER	PER				
(QTY * UNIT PRICE)	SYSTEM	MILE	100 SYSTEMS	100 MILES	QTY	EXTENDED COST		
1,879,911	1,042.08	2.50	4.6818	0.0112	82.31	1,832,056		
850,511	471.46	1.13	2.0843	0.0050	65.23	1,475,503		
738,673	409.46	0.98	0.5322	0.0013	3.92	301,624		
730,673	400.54	0.96	777.1502	1.8674	6,519.34	336,007		
606,657	336.28	0.90	7.7392	0.0176	142.15	651,331		
490,190	271.72	0.65	64.6962	0.1555	989.81	415,720		
229,322	127.12	0.03	5.6197	0.1335	169.19	382,708		
224,125	124.24	0.30	2.8121	0.0068	141.71	626,075		
206,667	114.56	0.28	4.6175	0.0111	151.00	374,631		
195,078	108.14	0.26	188.9834	0.4541	3,559.86	203,695		
178,957	99.20	0.24	1,579.6242	3.7956	65,486.44	411,255		
173,726	96.30	0.23	1.4900	0.0036	72.02	465,465		
170,212	94.35	0.23	1.7450	0.0042	49.17	265,862		
158,363	87.78	0.21	4.4246	0.0106	41.91	83,149		
155,985	86.47	0.21	1.5261	0.0037	126.33	715,786		
155,970	86.46	0.21	1.0006	0.0024	66.96	578,601		
120,272	66.67	0.16	1.1984	0.0029	88.86	494,328		
112,630	62.43	0.15	1.3525	0.0033	34.89	161,052		
107,878	59.80	0.14	3.3520	0.0081	129.25	230,582		
105,364	58.41	0.14	1.2733	0.0031	41.73	191,416		
104,916	58.16	0.14	6.0455	0.0145	119.05	114,526		
102,689	56.92	0.14	2.1264	0.0051	52.27	139,927		
99,970	55.42	0.13	25.7749	0.0619	318.43	68,462		
96,653	53.58	0.13	4.1436	0.0100	209.68	271,116		
94,050	52.13	0.13	1.0870	0.0026	35.13	168,483		
84,352	46.76	0.11	62.1208	0.1493	1,240.61	93,381		
84,108	46.62	0.11	0.1192	0.0003	2.25	88,020		
83,269	46.16	0.11	5.2156	0.0125	149.43	132,246		
74,098	41.07	0.10	20.3337	0.0489	1,016.67	205,367		
68,116	37.76	0.09	79.9623	0.1921	1,822.24	86,046		
64,144	35.56	0.09	8.0626	0.0194	161.27	71,120		
63,016	34.93	0.08	12.0870	0.0290	2,246.41	649,212		
62,085	34.42	0.08	1.2256	0.0029	73.95	207,652		
60,530	33.55	0.08	4.8487	0.0117	189.83	131,362		
59,491	32.98	0.08	0.1458	0.0004	4.72	106,766		
57,908	32.10	0.08	6.7578	0.0162	46.32	22,002		
57,272	31.75	0.08	3.9933	0.0096	95.76	76,129		
57,096	31.65	0.08	3.9562	0.0095	114.39	91,512		
56,477	31.31	0.08	2.4573	0.0059	55.09	70,185		
55,720	30.89	0.07	5.9285	0.0142	198.63	103,486		
9,069,032	56.8%	TOP 40						

43.2% OTHERS

TOTAL

6,895,606 ======= 15,964,638

# M2A1/M3A1 BFV TOP 40 COST DRIVERS CLASS IX REPARABLES (DLRs)

							FY 94 AMDF	UNIT PRICE	FY 94
	NSN	NOMENCLATURE	WBS	MRC	ARI	MATCAT	W/O CREDIT	W/CREDIT	QTY
1.	1240010965151	INTEGRATED SIGHT AS	06E	D	R	L21EW	199,776.00	90,298.75	45.82
2.	2520012746449	TRANSMISSION WITH (	03H	Н	R	K21MM	89,373.00	46,384.59	70.16
3.	1240012166331	INTEGRATED SIGHT AS	06E	D	R	L21E7	132,891.00	60,066.73	29.50
4.	1440011781141	LAUNCHER ASSEMBLY	07B	D	R	L21E7	24,672.00	11,151.74	77.95
5.	1005011055191	FEEDER, AUTOMATIC C	07A	F	С	M21H8	18,424.00	9,654.18	68.60
6.	2520013382703	TRANSMISSION WITH (	03H	Н	R	K21MM	111,505.00	57,871.10	10.50
7.	1430010855520	VISUAL MODULE ASSE	07B	D	R	L21EW	29,684.00	13,417.17	39.98
8.	5855011127725	BASIC SIGHT ASSY	06E	D	R	L21EW	55,050.00	24,882.60	19.34
9.	2530011024728	TRACK SHOE, VEHICUL	02B	D		K21MM	88.05	45.70	9,286.96
10.	2815012901290	ENGINE WITH CONTAIN	03A	Н	R	K21MM	35,698.00	18,527.26	19.09
11.	1240012045765	POWER CONTROL UNI	06E	F	R	M21MM	21,636.00	11,337.26	27.65
12.	2530012882719	TRACK SHOE, VEHICUL	02B	D	R	K21MM	105.00	54.50	5,125.09
13.	2520011056446	TRANSMISSION WITH (	03H	Н	R	K21MM	89,373.00	46,384.59	5.99
14.	2520011360971	HYDRAULIC ASSEMBL'	03H	D	R	K21MM	9,539.00	4,950.74	52.10
15.	2520011094350	CONTROL ASSEMBLY,	03H	D	R	K21MM	7,384.00	3,832.30	61.85
16.	3040011360991	CYLINDER, ACTUATING	03K	D	R	K21MM	10,151.00	5,268.37	42.88
17.	1430012332768	ELECTRONICS,COMMA	07B	D	Е	L21EW	14,166.00	6,403.03	34.99
18.	4935013594462	TEST CONTROLLER	18	D	R	L21E7	60,999.00	27,571.55	8.00
19.	1240010953501	PERISCOPE HEAD ASS	06E	D	Е	L21EW	27,544.00	12,449.89	16.71
20.	6105011114893	MOTOR, DIRECT CURR	04A	D	С	M21MM	2,441.00	1,279.08	130.30
	2920011079930	GENERATOR, ENGINE /	03A	D		K21MM	2,652.00	1,376.39	107.72
22.	4935011330564	CONTROLLER, TEST, GI	18	D	Ε	L21EW	72,226.00	32,646.15	4.52
23.	4935013592970	MISSILE SIMULATOR	18	D	R	L24E7	25,564.00	11,554.93	12.17
24.	1240013082016	COOLER ASSEMBLY	06E	D	R	L21E7	4,074.00	1,841.45	74.00
25.	1240013396326	VISUAL MODULE ASSE	06E	D	R	L21E7	21,999.00	9,943.55	13.30
26.	2520012182208	POWER TAKEOFF,TRA	03P	D	R	K21MM	6,668.00	3,460.69	37.36
27.	5855011433182	BASIC SIGHT ASSEMBI	06E	D	R	L21FG	29,463.00	13,317.28	8.66
28.	1420013298870	MISSILE GUIDANCE SE	07B	D	R	L21E7	10,538.00	4,763.18	21.30
29.	1440010855517	LAUNCHER.ASSEMBLY	07B	D	R	L21E7	24.672.00	11,151.74	8.50
30.	1005010955205	GYRO ASSEMBLY,GUN	07D	D	Е	M21MM	6,603.00	3,459.97	25.10
	1240012173808	COOLER ASSEMBLY	06E	D	С	L21E7	3,834.00	1,732.97	49.18
32.	6130012761303	POWER SUPPLY	05E	D	R	L21E7	13,533.00	6,116.92	13.75
	5855012525422	DETECTOR-DEWAR	06E	D		G21SV	3,826.00	2,096.65	38.51
	2520012408789	FINAL DRIVE ASSEMBL	03N	H	R	K21MM	4,836.00	2,509.88	31.86
	1430013728307	FLEX,HARNESS ASSEN	07B	D	R	L21EW	5,120.00	2,314.24	34.45
	1240012172353	BASIC SIGHT ASSY	06E	D	R	L21E7	39,247.00	17,739.64	4.07
	6650011128567	AFOCAL TELESCOPE A	18	D	R	L21EW	26,516.00	11,985.23	6.00
	2540011695159	HEATER, VEHICULAR, C	01H	F	C	K21MC	1,474.00	765.01	83.58
39.		CIRCUIT CARD ASSEM	06E	D.	R	L21EW	3,907.00	1,765.96	35.16
	5855011057793	VIEWER, NIGHT VISION	06E	Н	E	G21SY	5,212.00	2,856.18	21.70
٠٠.	0000011001100	VIEWER, NOTH VIOLON	UUL		_	32131	0,212.00	2,000.10	21.70

NUMBER OF SYSTEMS	1,804
MILES	750,776

NOTE: ROWS MAY NOT CALCULATE DUE TO ROUNDING

# M2A1/M3A1 BFV REPARABLES (DLRs)

	AVERAGE	COST				FY 90-94
EXTENDED COST	(W/CRE	DIT)	AVERAGE C	QUANTITY	FIVE Y	'EAR AVERAGE
W/CREDIT	PER	PER	PER	PER		EXTENDED COST
(QTY * UNIT PRICE)	SYSTEM	MILE	100 SYSTEMS	100 MILES	QTY	(W/CREDIT)
4,137,489	2,293.51	5.51	2.5399	0.0061	44.16	3,987,593
3,254,343	1,803.96	4.33	3.8891	0.0093	143.23	6,643,665
1,771,969	982.24	2.36	1.6353	0.0039	34.90	2,096,329
869,279	481.86	1.16	4.3210	0.0104	93.39	1,041,461
662,277	367.12	0.88	3.8027	0.0091	80.12	773,493
607,647	336.83	0.81	0.5820	0.0014	2.10	121,529
536,418	297.35	0.71	2.2162	0.0053	55.80	748,678
481,229	266.76	0.64	1.0721	0.0026	34.47	857,703
424,413	235.26	0.57	514.7982	1.2370	42,368.19	1,936,226
353,686	196.06	0.47	1.0582	0.0025	15.62	289,396
313,475	173.77	0.42	1.5327	0.0037	70.93	804,152
279,317	154.83	0.37	284.0959	0.6826	11,235.42	612,330
277,844	154.02	0.37	0.3320	0.0008	66.80	3,098,491
257,934	142.98	0.34	2.8880	0.0069	40.82	202,089
237,027	131.39	0.32	3.4285	0.0082	90.57	347,091
225,908	125.23	0.30	2.3769	0.0057	37.58	197,985
224,042	124.19	0.30	1.9396	0.0047	42.20	270,208
220,573	122.27	0.29	0.4435	0.0011	1.60	44,114
208,037	115.32	0.28	0.9263	0.0022	22.54	280,621
166,664	92.39	0.22	7.2228	0.0174	93.86	120,054
148,264	82.19	0.20	5.9712	0.0143	298.14	410,357
147,560	81.80	0.20	0.2506	0.0006	3.90	127,320
140,623	77.95	0.19	0.6746	0.0016	7.23	83,542
136,268	75.54	0.18	4.1020	0.0099	44.80	82,497
132,249	73.31	0.18	0.7373	0.0018	12.06	119,919
129,291	71.67	0.17	2.0710	0.0050	67.47	233,493
115,327	63.93	0.15	0.4800	0.0012	3.53	47,010
101,455	56.24	0.14	1.1807	0.0028	7.86	37,439
94,790	52.54	0.13	0.4712	0.0011	11.70	130,475
86,845	48.14	0.12	1.3914	0.0033	62.82	217,355
85,227	47.24	0.11	2.7262	0.0066	72.24	125,190
84,108	46.62	0.11	0.7622	0.0018	5.15	31,502
80,742	44.76	0.11	2.1347	0.0051	37.70	79,044
79,965	44.33	0.11	1.7661	0.0042	44.57	111,865
79,726	44.19	0.11	1.9096	0.0046	6.89	15,945
72,200	40.02	0.10	0.2256	0.0005	22.21	393,997
71,911	39.86	0.10	0.3326	0.0008	12.40	148,617
63,939	35.44	0.09	4.6330	0.0111	111.12	85,008
62,091	34.42	0.08	1.9490	0.0047	42.63	75,283
61,979	34.36	0.08	1.2029	0.0029	16.34	46,670

17,484,131 87.6% TOP 40 2,466,445 12.4% OTHERS ========= 19,950,576 TOTAL The following table summarizes FY 94 Depot Maintenance Costs from the Master File Maintenance (MFM). Depot maintenance costs are displayed by cost elements for end item maintenance and secondary item maintenance. The OTHER cost columns represent work categories such as progressive maintenance, renovation, and fabrication/manufacture. For reporting purposes, TRANSPORTATION costs recorded in the World Aircraft Logistics Conference (WALC)/Special Aircraft Assignment Mission (SAAM) records are shown in the OTHER maintenance category.

M2A1/M3A1 BFV FY 94 DEPOT MAINTENANCE COSTS									
COST		END I	TEM			SECONDARY	ITEM		
ELEMENTS		MAINTE	NANCE			MAINTENAN	NCE		
	REPAIR	OVERHAUL	OTHER	MODIFICATION	REPAIR	OVERHAUL	OTHER		
CIVILIAN LABOR	10,504,024	1,751,120	28,644	0	192,606	260,671	5,082		
MILITARY LABOR	0	0	0	0	0	0	0		
MATERIEL	13,785,966	1,285,646	581,857	0	218,234	345,219	12,421		
TRANSPORTATION	0	0	0	0					
OVERHEAD	20,328,688	3,185,143	47,893	0	571,152	549,415	11,913		
CONTRACT	0	0	0	0	0	0	0		
OTHER	1,456,596	281,694	165,006	0	6,606	14,845	5		
TOTAL	46,075,274	6,503,603	823,400	0	988,598	1,170,150	29,421		
QTY COMPLETED	311	36	57	0	266	812	333		
AVG COST	148,152	180,656	14,446	0	3,717	1,441	88		

The table below summarizes FY 94 Intermediate Maintenance Costs from the Work Order Logistics File (WOLF) data. The labor hours and labor costs for Direct Support/General Support Intermediate Maintenance (DS/GS) and Civilian Maintenance are displayed by MACOM and Total Army. MACOM DS/GS LABOR COSTS are calculated by multiplying MACOM labor hours by the Army Manpower Cost System (AMCOS) E-5 composite standard rate (\$16.61). CIVILIAN LABOR COSTS are a summation from the source data.

	M2A1/M3A1 BFV FY 94 INTERMEDIATE MAINTENANCE COSTS									
DS/GS LABOR DS/GS CIVILIAN CIVILIAN CIVILIAN										
MACOM	HOURS	LABOR COSTS	LABOR HOURS*	LABOR COSTS <sup>*</sup>	COST/HOUR					
FORSCOM	23,224	385,751	22,864	470,549	20.58					
USAREUR	2,539	42,173								
EUSA	0	0								
USARPAC	0	0								
USARSO	0	0								
USASOC	0	0								
TRADOC	27	448	1	34	34.00					
ARNG	11,798	195,965								
USAR	0	0								
TOTAL ARMY	37,588	624,337	22,865	470,583	20.58					

<sup>\*</sup>TRADOC LABOR HOURS and LABOR COSTS include contractor hours and costs.

The following table summarizes FY 90-94 Depot Maintenance Costs. The depot maintenance data are recorded in MFM. FY 94 costs are a summation of the cost elements displayed on the previous page. END ITEM OVERHEAD costs were not separately identified prior to FY 92. TRANSPORTATION costs are recorded in the WALC/SAAM records. Blank columns indicate system was not tracked in the OSMIS database during that fiscal year.

	M2A1/M3A1 BFV FIVE YEAR DEPOT MAINTENANCE COSTS									
COST			END ITEM				SEC	ONDARY I	ТЕМ	
ELEMENTS		M	AINTENANO	CE			M	AINTENANO	CE	
	FY 90	FY 91	FY 92	FY 93	FY 94	FY 90	FY 91	FY 92	FY 93	FY 94
CIVILIAN LABOR	5,886,931	7,780,774	12,548,793	12,459,703	12,283,788	2,010,538	2,469,318	2,433,791	994,955	458,359
MILITARY LABOR	0	0	0	0	0	0	0	0	0	0
MATERIEL	8,351,449	26,756,334	38,686,198	32,091,519	15,653,469	2,870,090	6,854,555	5,324,437	1,416,680	575,874
TRANSPORTATION	0	0	0	0	0					
OVERHEAD	0	0	20,583,922	22,584,351	23,561,724	3,021,257	3,803,234	4,037,907	1,877,972	1,132,480
CONTRACT	0	0	0	0	0	14,508	0	0	487	0
OTHER	10,009,443	12,088,978	1,146,435	501,975	1,903,296	232,334	220,480	303,170	12,574	21,456
TOTAL	24,247,823	46,626,086	72,965,348	67,637,548	53,402,277	8,148,727	13,347,587	12,099,305	4,302,668	2,188,169
QTY COMPLETED	349	291	392	400	404	4,203	6,277	19,146	4,291	1,411
AVG COST	69,478	160,227	186,136	169,094	132,184	1,939	2,127	632	1,003	1,551

The table below sumarizes FY 90-94 Intermediate Maintenance Costs from WOLF. The fiscal year total costs for Direct/General Support Intermediate Maintenance (DS/GS) and Civilian Maintenance are displayed by MACOM and Total Army. MACOM DS/GS labor costs are calculated by multiplying MACOM labor hours by the Army Manpower Cost System (AMCOS) E-5 composite standard rate. DS/GS COST PER HR is the E-5 composite standard rate in FY 94 constant dollars. CIVILIAN LABOR COSTS are a summation from the source data. Blank columns indicate system was not tracked in the OSMIS database during that fiscal year.

	M2A1/M3A1 BFV FIVE YEAR INTERMEDIATE MAINTENANCE COSTS											
DIRECT/GENERAL SUPPORT								CIVILIAN				
	INT	ERMEDIATE	E MAINTEN	ANCE (DS/	GS)		MAIN	ITENANCE	(CIV)			
MACOM	FY 90	FY 91	FY 92	FY 93	FY 94	FY 90	FY 91	FY 92	FY 93	FY 94		
FORSCOM	408,804	179,248	263,340	519,187	385,751	2,565	28,660	12,521	64,974	470,549		
USAREUR	157,540	8,815	30,111	5,096	42,173							
EUSA	0	0	0	0	0							
USARPAC	0	0	0	0	0							
USARSO	0	0	0	0	0							
USASOC	0	0	0	0	0							
TRADOC	18,191	11,707	7,876	397	448	57,557	350,898	170,077	285,175	34		
ARNG	224,956	159,324	240,432	185,112	195,965							
USAR	0	0	0	0	0							
TOTAL ARMY	809,491	359,094	541,759	709,792	624,337	60,122	379,558	182,598	350,149	470,583		
LABOR HRS	48,186	21,170	32,171	41,298	37,588							
COST PER HR	16.80	16.96	16.84	17.19	16.61	21.46	20.07	21.51	21.31	20.58		

The following list shows the FY 94 Secondary Item - Rebuilds/Overhauls Cost Drivers recorded in the MFM. AVG COST TO REBUILD/OVERHAUL is calculated by dividing the costs in FY 94 TOTAL COST TO REBUILD/OVERHAUL by FY 94 QTY COMPLETED.

M2A1/M3A1 BFV										
FY 94 DEPO	FY 94 DEPOT SECONDARY ITEM MAINTENANCE - REBUILDS/OVERHAULS									
COST DRIVERS										
	FY 94									
		FY 94	TOTAL COST	FY 94	AVG COST					
		AMDF	TO REBUILD/	QTY	TO REBUILD/					
NSN	NOMENCLATURE	PRICE	OVERHAUL	COMPLETED	OVERHAUL					
2520-01-274-6449	TRANSMISSION WIT	89,373	226,034	22	10,274					
2920-01-204-4470	GENERATOR, ENGINE	3,391	128,559	51	2,521					
1005-01-086-1400	<b>GUN AUTOMATIC 25</b>	48,203	80,338	16	5,021					
2520-01-109-4350	CONTROL ASSEMBLY	7,384	53,539	34	1,575					
1005-01-105-5191	FEEDER, AUTOMATIC	18,424	48,035	20	2,402					
1005-01-117-9821	CONTROL BOX,WEAP	1,272	47,350	37	1,280					
1005-01-223-8819	ELECTRONIC CONTR	22,620	41,904	13	3,223					
6110-01-176-8802	DISTRIBUTION BOX	8,641	37,325	11	3,393					
6130-01-110-7760	POWER SUPPLY	1,784	34,774	45	773					
2910-01-217-8309	PUMP.FUEL WITH V	1.323	33.994	23	1.478					

The following list shows the FY 94 Secondary Item Maintenance - Repairs Cost Drivers recorded in MFM. AVG COST TO REPAIR is calculated by dividing the costs in FY 94 TOTAL COST TO REPAIR by FY 94 QTY COMPLETED.

M2A1/M3A1 BFV FY 94 DEPOT SECONDARY ITEM MAINTENANCE - REPAIRS COST DRIVERS										
FY 94 FY 94 FY 94										
		AMDF	TOTAL COST	QTY	AVG COST					
NSN	NOMENCLATURE	PRICE	TO REPAIR	COMPLETED	TO REPAIR					
1240-01-216-6331	INTEGRATED SIGHT	132,891	317,091	8	39,636					
1430-01-233-2768	ELECTRONICS,COMM	14,166	108,100	49	2,206					
1440-01-178-1141	LAUNCHER ASSEMBL	24,672	96,780	31	3,122					
1440-01-167-7514	LAUNCHER ASSEMBL	9,988	83,567	34	2,458					
1430-01-085-5520	VISUAL MODULE AS	29,684	74,441	12	6,203					
1440-01-160-2591	ARMAMENT CONTROL	5,734	59,604	27	2,208					
1420-01-329-8870	MISSILE GUIDANCE	10,538	50,943	23	2,215					
5855-01-112-7725	BASIC SIGHT ASSY	55,050	38,139	5	7,628					
1430-01-092-0595	FLEX,HARNESS ASS	5,358	28,911	9	3,212					
1240-01-217-2353	BASIC SIGHT ASSY	39,247	27,557	1	27,557					

The following list shows the FY 90-94 Secondary Item - Rebuild/Overhauls Cost Drivers recorded in MFM. These five year Cost Drivers were revised from previous years' report, see Appendix A, Section 15 for further explanation. AVG COST TO REBUILD/OVERHAUL is calculated by dividing the costs in FY 90-94 TOTAL COST TO REBUILD/OVERHAUL by FY 90-94 QTY COMPLETED.

FIVE YEAR DE	M2A1/M3A1 BFV FIVE YEAR DEPOT SECONDARY ITEM MAINTENANCE - REBUILDS/OVERHAULS COST DRIVERS									
			FY 90-94							
		FY 94	TOTAL COST	FY 90-94	AVG COST					
		AMDF	TO REBUILD/	QTY	TO REBUILD/					
NSN	NOMENCLATURE	PRICE	OVERHAUL	COMPLETED	OVERHAUL					
2520-01-105-6446	TRANSMISSION WIT	89,373	13,809,088	639	21,610					
2815-01-105-6445	ENGINE BLOCK ASS	4,582	9,705,204	566	17,147					
2520-01-274-6449	TRANSMISSION WIT	89,373	1,907,841	100	19,078					
2920-01-107-9930	GENERATOR, ENGINE	2,652	1,037,126	863	1,202					
6110-01-139-2918	DISTRIBUTION BOX	5,666	904,870	298	3,036					
6110-01-113-1076	DISTRIBUTION BOX	4,418	457,918	219	2,091					
2530-00-801-6702	WHEEL SOLID RUBB	289	407,867	4,526	90					
1005-01-223-8819	ELECTRONIC CONTR	22,620	289,233	70	4,132					
2520-01-109-4350	CONTROL ASSEMBLY	7,384	288,161	200	1,441					
2920-01-204-4470	GENERATOR, ENGINE	3,391	287,958	100	2,880					

The following list shows the FY 90-94 Secondary Item - Repairs Cost Drivers recorded in MFM. These five year Cost Drivers were revised from previous years' report, see Appendix A, Section 15 for further explanation. AVG COST TO REPAIR is calculated by dividing the costs in FY 90-94 TOTAL COST TO REPAIR by FY 90-94 QTY COMPLETED.

M2A1/M3A1 BFV FIVE YEAR DEPOT SECONDARY ITEM MAINTENANCE - REPAIRS COST DRIVERS					
		FY 94	FY 90-94	FY 90-94	
		AMDF	TOTAL COST	QTY	AVG COST
NSN	NOMENCLATURE	PRICE	TO REPAIR	COMPLETED	TO REPAIR
5855-01-112-7725	BASIC SIGHT ASSY	55,050	1,182,564	129	9,167
1240-01-216-6331	INTEGRATED SIGHT	132,891	890,574	61	14,600
1440-01-178-1141	LAUNCHER ASSEMBL	24,672	693,336	185	3,748
1430-01-085-5520	VISUAL MODULE AS	29,684	538,656	169	3,187
1240-01-217-2353	BASIC SIGHT ASSY	39,247	447,453	44	10,169
1430-01-233-2768	ELECTRONICS,COMM	14,166	396,797	171	2,320
1440-01-085-5517	LAUNCHER.ASSEMBL	24,672	345,743	65	5,319
1440-01-160-2591	ARMAMENT CONTROL	5,734	304,833	100	3,048
1440-01-167-7514	LAUNCHER ASSEMBL	9,988	296,774	53	5,600
1240-01-167-1316	VISUAL MODULE AS	21,999	207,309	65	3,189

# **CHOOSE A VOLUME FOR MORE SYSTEMS**



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